

easySAM – Acoustic Microscope

High resolution acoustic imaging meeting full flexibility of conventional microscopy

The new easySAM Series is a milestone in acoustic microscopy and is used to assess local mechanical properties of biological and cellular samples with optical resolution. The technique does not induce damage and can be used to image the interior of opaque samples. Image quality, user friendliness and value for cost were the challenges for this new microscope line. With this full flexible easySAM system consisting of different acoustic lenses fitting to standard upright microscopes and easy to use software packages you can obtain unique ultrasound data while doing your standard microscopic investigations in parallel.



Applications

The combination of non invasive ultrasound and conventional microscopic imaging provides fast and easy quantitative ultrasound analysis and unique insights of deep tissue structures and 3D cellular models making the easySAM ideal for a broad range of applications such as

- developmental biology
- tissue engineering
- investigation of living multi cellular spheroids and 3D tissue models
- tumor necrosis models
- cell mechanics ٠
- bone, bone implants, dentistry
- characterization of biopsies
- investigation of tissue sections
- ceramics
- semiconductors

easySAM

Designed to eliminate the complexity of high frequency ultrasound imaging without compromising the performance, the new easySAM series simplifies ultrasound imaging and make this powerful investigation tool accessible for life science applications. kibero now offers a versatile ultrasound lens which can be easily mounted via an adapter in the objective revolver of most standard upright microscopes (e.g. Zeiss). No specific and complicated ultrasound hardware setups are required and the systems offers full flexibility of different microscope objectives and standard microscope imaging modes such as phase contrast, bright field or fluorescence.

easySAM specifications

The easySAM microscope series offers highest imaging quality of even large scale samples in the frequency range of 100 MHz to 400 MHz. Fitting to the customer specific requirements and their applications three different models and software solutions are available, the easySAM basic, the easySAM research and the easySAM professional supporting a field of view of up to 10 mm and a signal resolution of 14 bit. The systems are easily integrated into standard microscopy platforms and support semi automatic image acquisition of the ultrasound data as convenient as with your wellknown research microscope.

